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Change Kumber

# Federal Facility Agreement and Consent Order Change Control Form

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Date

Originator

Phone

E. K. Carter

Class of Change

[ ] [ - Signatories

[ ] II - Project Manager

[x ] [II - Unit Manager

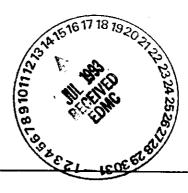
Change Title

Revise target date M-11-00-T1

Description/Justification of Change

Revise target date M-11-00-T1, "Complete Construction", from 6/93 to 3/94

The target date was established two years before detailed construction scheduling was completed. Completion of definitive design and award of the construction contract have better defined this activity and generated detailed schedules for completion of this project.



Impact of Change

Change will not impact Major Milestone M-II-00, "Complete Construction and Initiate Operations - 6/94"

Affected Documents

Hanford Federal Facility Agreement and Consent Order Action Plan, Appendix D, Work Schedule

| Approvals | Approved    | Disapproved   |  |
|-----------|-------------|---------------|--|
| Paula Ki  | Clerk       | 5/2-4/93      |  |
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## **BACKGROUND**

Project W-041H, Environmental Hot Cell Expansion, will provide a seven-compartment hot cell housed in a new addition to the 222-S Analytical Laboratory in the the 200-West Area. The project is required to meet TriParty Agreement milestone number M-11-00. Two interim milestones have been successfully met: Complete Conceptual Design (M-11-01), and Complete Definitive Design (M-11-02). Target milestone M-11-00-T1, Complete Construction, is currently defined for June 30, 1993. Change request number M-11-92-02A, if approved, will change the target milestone date to March 30, 1994. This change will not affect the Major Milestone M-11-00, Complete Construction and Inititate Operations, June, 1994. The two basic elements needed to complete the Major Milestone are construction completion and startup activities, further described below. The current startup schedule is attached, showing the relationship of the construction project and the startup activities.

#### COMPLETE CONSTRUCTION

Construction is ongoing. A Fixed Price Contractor (FPC) is performing a majority of the contruction work. As scheduled now, once the hot cell and its surrounding building have been completed by the FPC, Westinghouse Hanford Company (WHC) will install the analytical instruments, chemical apparatus, computers, etc., in and around the hot cell. Then installation of the shielding windows and manipulators will be done by the on-site Construction Forces (CF). Tie-ins (connections) to 222-S existing services, some of which are potentially contaminated (or "hot") will also be done by CF trained to work in radiation zones. These "hot tie-ins" include the ventilation for the hot cell and drain lines for draining radoactive liquid waste from the hot cell compartments to an existing collection tank. These systems will be fully installed ahead of time, with a barrier that can be easily removed to achieve hot tie-in. The reason for this schedule is that once the barrier is removed, the hot tie-ins are made and the hot cell becomes "hot" by definition, even though no radioactive samples have been introduced. With the cell being "hot", all work becomes radiation work, increasing the cost and time required to accomplish a task. It is therefore cost effective to delay hot tie-ins as long as possible. In addition, the shielding windows and manipulators are most efficiently installed after the other equipment, for ease of access into the compartments and to protect the equipment from damage.

Hot tie-ins and window/manipulator installations may be completed as late as April 1994. However, construction work performed by the FPC (including Acceptance Test Procedures) will be completed several months earlier. Acceptance Test Procedures will be performed on the fire alarm system, cathodic protection system, and the instrumentation and electrical system. At that point, Part II of the Official Acceptance of Construction will be signed off, satisfying the M-II-00-Tl Target Milestone for construction completion.

### STARTUP ACTIVITIES

In addition to construction completion, the key elements necessary to initiate operations are as follows:

## 222-S Ventilation and Electrical Upgrade

Project W-001, 222-S Ventilation and Electrical Upgrade, provides enhanced electrical and ventilation services for use in the existing 222-S facility as well as the Hot Cell Expansion. Electrical services will be provided to the hot cell addition by October 1993, and the ventilation services will be ready for "hot" tie-in by May 1994.

### Hot Cell Equipment

In addition to the equipment provided by Project W-041H (e.g. windows and manipulators), items such as balances, sample extruder, and transfer carts will be purchased or fabricated, then installed and tested.

## Operational Test Procedures

Operational Test Procedures (OTP) will be performed on all necessary systems to assure operability. Examples of the systems are the bridge crane, load-in compartment hoists, manipulator cart, hoods and ventilation systems.

## Staffing and Training

Procedures will be prepared, and staff will be selected, trained and certified. Much of the procedure development, staffing and training can be done before the completion of construction and installation of windows and manipulators because the operations are similar or identical to hot cell operations in the existing facility. For example, the manipulators are identical to the ones in use now, and staff can be trained on existing equipment.

### Facility Documentation

Safety documentation for the 222-S facility including the hot cell addition will be updated, reviewed and approved.

## Operational Readiness Review and DOE Approval

Westinghouse Hanford will conduct a review and declare readiness to DOE. DOE will conduct a readiness evaluation and approve startup. The initial portion of this activity can be done in parallel with the other activities.

### TARGET MILESTONE CHANGE REQUEST

The original M-11-00-T1 Target Milestone, June 1993, was based on completion of construction and installation of windows and manipulators before installation of auxiliary equipment, readiness reviews, and other startup activities began. It was set well before design was complete and the Fixed Price contractors schedule was established. However, startup can be achieved on Milestone M-11-00 most efficiently through delayed installation of hot cell windows and manipulators and hot tie-ins, and through initiation of startup activities in parallel with completion of construction. Therefore, this

change request is to move the M-11-00-Tl Target Milestone "Complete Construction" to March 1994, with no effect on the M-11-00 Major Milestone.

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